Product datasheet

Anti-Alpha Skeletal Muscle Actin antibody [EPR18430] ab184705

Overview

Product name: Anti-Alpha Skeletal Muscle Actin antibody [EPR18430]
Description: Rabbit monoclonal [EPR18430] to Alpha Skeletal Muscle Actin
Host species: Rabbit
Tested applications: Suitable for: WB, IHC-P
Species reactivity: Reacts with: Mouse, Rat, Human
Immunogen: Recombinant fragment within Human Alpha Skeletal Muscle Actin aa 1-200. The exact sequence is proprietary.
Database link: P68133

Positive control: WB: Human, mouse and rat skeletal muscle and heart lysates; Human bladder lysate. IHC-P: Mouse and rat skeletal muscle tissues.

General notes: IHC is recommended for rat and mouse only.
Our RabMab® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab® patents
This product is a recombinant rabbit monoclonal antibody.

Properties

Form: Liquid
Storage buffer: Preservative: 0.01% Sodium azide
Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity: Protein A purified
Clonality: Monoclonal
Clone number: EPR18430
Isotype: IgG
Function

Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells.

Involvement in disease

Defects in ACTA1 are the cause of nemaline myopathy type 3 (NEM3) [MIM:161800]. A form of nemaline myopathy. Nemaline myopathies are muscular disorders characterized by muscle weakness of varying severity and onset, and abnormal thread-or rod-like structures in muscle fibers on histologic examination. The phenotype at histological level is variable. Some patients present areas devoid of oxidative activity containing (cores) within myofibers. Core lesions are unstructured and poorly circumscribed.

Defects in ACTA1 are a cause of myopathy congenital with excess of thin myofilaments (MPCETM) [MIM:161800]. A congenital muscular disorder characterized at histological level by areas of sarcoplasm devoid of normal myofibrils and mitochondria, and replaced with dense masses of thin filaments. Central cores, rods, ragged red fibers, and necrosis are absent.

Defects in ACTA1 are a cause of congenital myopathy with fiber-type disproportion (CFTD) [MIM:255310]; also known as congenital fiber-type disproportion myopathy (CFTDM). CFTD is a genetically heterogeneous disorder in which there is relative hypertrophy of type 1 muscle fibers compared to type 2 fibers on skeletal muscle biopsy. However, these findings are not specific and can be found in many different myopathic and neuropathic conditions.

Sequence similarities

Belongs to the actin family.

Cellular localization

Cytoplasm > cytoskeleton.

Applications

Our Abpromise guarantee covers the use of ab184705 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td>1/1000. Detects a band of approximately 42 kDa (predicted molecular weight: 42 kDa).</td>
<td></td>
</tr>
<tr>
<td>IHC-P</td>
<td>1/100.</td>
<td></td>
</tr>
</tbody>
</table>
Immunohistochemical analysis of paraffin-embedded Rat skeletal muscle tissue labeling Alpha Skeletal Muscle Actin with ab184705 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Weak cytoplasm staining in rat skeletal muscle is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab97051 at 1/500 dilution.
All lanes: Anti-Alpha Skeletal Muscle Actin antibody [EPR18430] (ab184705) at 1/1000 dilution

Lane 1: Mouse brain lysate
Lane 2: Mouse heart lysate
Lane 3: Mouse kidney lysate
Lane 4: Mouse spleen lysate
Lane 5: Rat brain lysate
Lane 6: Rat heart lysate
Lane 7: Rat kidney lysate
Lane 8: Rat spleen lysate
Lane 9: Human brain lysate
Lane 10: Human heart lysate
Lane 11: Human kidney lysate
Lane 12: Human spleen lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes: Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 42 kDa
Observed band size: 42 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.
Immunohistochemical analysis of paraffin-embedded Mouse skeletal muscle tissue labeling Alpha Skeletal Muscle Actin with ab184705 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

Weak cytoplasm staining in mouse skeletal muscle is observed.

Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab97051 at 1/500 dilution.

All lanes: Anti-Alpha Skeletal Muscle Actin antibody [EPR18430] (ab184705) at 1/1000 dilution

Lane 1: Human skeletal muscle lysate
Lane 2: Mouse skeletal muscle lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes: Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/10000 dilution

Predicted band size: 42 kDa
Observed band size: 42 kDa

Exposure time: 5 seconds
Western blot - Anti-Alpha Skeletal Muscle Actin antibody [EPR18430] (ab184705)

Anti-Alpha Skeletal Muscle Actin antibody [EPR18430] (ab184705) at 1/1000 dilution + Rat skeletal muscle lysate at 10 µg

Secondary
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/10000 dilution

Predicted band size: 42 kDa
Observed band size: 42 kDa

Exposure time: 1 second

Blocking/Dilution buffer: 5% NFDM/TBST.

Western blot - Anti-Alpha Skeletal Muscle Actin antibody [EPR18430] (ab184705)

Anti-Alpha Skeletal Muscle Actin antibody [EPR18430] (ab184705) at 1/1000 dilution + Human bladder lysate at 10 µg

Secondary
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/10000 dilution

Predicted band size: 42 kDa
Observed band size: 42 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit [https://www.abcam.com/abpromise](https://www.abcam.com/abpromise) or contact our technical team.

**Terms and conditions**

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors